

CONTRIBUTIONS TOWARDS A CATALOGUE OF THE INSECTS OF KANSAS.

Results of Personal Collecting.

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ADDITIONS TO THE KANSAS LIST OF HEMIPTERA- HETEROPTERA.

THE names of forty-eight species or varieties of Hemiptera-Heteroptera are hereby added to the Kansas list which was begun by Prof. E. A. Popenoe in Transactions Kansas Academy of Science, volume IX, pages 62, 63, and recently enlarged by Mr. F. F. Crevecoeur, *loc. cit.*, volume XIX, pages 232-234.

All the specimens were collected in Douglas county, except in one instance, which is especially denoted.

Family PENTATOMIDÆ.

(Subfamily *Cydninæ.*)

Cydnus obliquus Uhl. April.

Pangæus uhleri Signoret. May, June, July, October.

(Subfamily *Pentatominæ.*)

Brochymena quadripustulata Fab. April, August.

Pentatoma ligata Stal. April, October.

Euschistus tristigmus Say, var. *pyrrhocerus* H.-Sch. July; July, twilight; August.

Meneclis insertus Say. April, November.

Family COREIDÆ.

Archimerus calcarator Fab. June; June, twilight.

Acanthocephala instabilis Uhl. October.

terminalis Dallas. June, October.

Leptoglossus oppositus Say. October; October, twilight; November; November, twilight.

Alydus eurinus Say. August.

pilosulus H.-Sch. August.

Harmostes fraterculus Stal. August.

Corizus nigristernum Signoret. May, July.

sidæ Fab. August, on cockle-bur blossoms.

Family LYGÆIDÆ.

Nysius minutus Uhl. July; August; August, at night. Also in Sedgwick county; September.

Belonochilus numenius Say. November.

Phlegyas annulicrus Stal. May, at night.

Sphragisticus nebulosus Fal. August, at night.

Eremocoris ferus Say. August, October.

Family TINGIDÆ.

Corythuca pergandei Heid. May, at night (metatype); October.

Family ARADIDÆ.

Aradus quadrilineatus Say. May.

Family REDUVIDÆ.

Oncerothelus acuminatus Say. May.

Pygolampis pectoralis Say. June and July, all at electric light.

Stenopoda culiciformis Fab. July, at street lamp.

Reduvius personatus Linn. May, at night; June, at night; July; August.

Acholla multispinosa De G. July; July, twilight; August; September; October.

Sinea raptoria Stal. June.

Reduviolus pallescens Reut. May, at night.

Family CAPSIDÆ.

Psallus delicatus Uhl. May.

Plagiognathus politus Uhl. June; June, twilight; July, at night; September.
annulatus Uhl. May; June, twilight; August.

Orthotylus flavosparsus Sahl. July, August.

diaphanus Kirsch. Identified by Mr. Otto Heidemann as "probably" this species. June, twilight.

Ceratocapsus (*Melinna*) *fasciatus* Uhl. August; August, twilight.

lutescens Reut. August.

Ilnacora (subgenus *Corinala*) *stalii* Reut. May, June, August, September.
(*Sthenarops*) *chloris* Uhl. June.

malina Uhl. June.

Lygus distantii Atk. (= *scutellatus* Distant). May, immature; July.

invitus Say, dark variety. June.

monachus Uhl., var. May, June.

plagiatus Uhl. April.

Miridius, not recognizable. August, at night.

Stenodema (*Miris*) *instabilis* Uhl. (= *affinis* Reut.) April, June.

Callimiris tarsalis Reut. July; August, at electric light.

Family BELOSTOMATIDÆ.

Benacus haldemanum (Leidy) Stal. (= *grisea* Say.) May and July, all at electric light.

Amorgius uhleri Mont. July, at electric light.

ADDITIONS TO THE KANSAS LIST OF HEMIPTERA-HOMOPTERA.

The number of species, including named varieties, hereby added to the Kansas list of Hemiptera-Homoptera is forty-one. With few exceptions, which are fully denoted in each case, all the specimens were collected in Douglas county.

Family CICADIDÆ.

Cicada tibicen Linn. July to first week in October. Also in Sedgwick county, August.

Family MEMBRACIDÆ.

Entylia sinuata Fab., var. *bactriana* Germ. May; June, twilight.

Ceresa taurina Fitch. June, July.

Stictocephala inermis Fab. August.

Telamona ampelopsidis Harr. June, twilight.

Acutalis calva Say. June.

Family FULGORIDÆ.

Scolops grossus Uhl. July.

Amalopota fitchi Van D. July, at night; August, at night.

Anotia kirkaldyi Ball. August, at night.

Oliarus complectus Ball. June, twilight.

Liburnia lutulenta Van D. April.

ornata Stal. July, twilight; August, twilight.

Family JASSIDÆ.

Idiocerus moniliferæ O. & B. June.

nervatus Van D. April.

snowi G. & B. June, at electric light.

suturalis Fitch. June, at electric light.

Agallia constricta Van D. April; June, twilight; July; July, twilight; August.

Tettigonia hieroglyphica Say, var. *dolobrata* Ball. June.

Dræculacephala angulifera Wlk. Sedgwick county; June.

Gypona dorsalis Spang. August.

octolineata Say, var. *flavilineata* Fitch. June; June, at night; July, at electric light and at night; September, at electric light and at night.

Paramesus twiningi Uhl. September, at night.

Platymetopius acutus Say. October.

Deltocephalus nigrifrons Forbes. April; May; May, twilight; July; August.

sylvestris O. & B. May, July.

weedi Van D. June, twilight; August.

Phlepsius decorus O. & B. July, September.

Scapoideus scalaris Van D. July.

Thamnotettix longula G. & B. April.

fitchi Van D. July.

Gnathodus impictus Van D. June.

Empoasca albolinea Gill. July and September, all at electric light.

viridescens Walsh. May; June, twilight; July; August.

Dicraneura fieberi Loew. May, at night; July.

Typhlocyba rosæ Harr. May, at lamplight; July; August.

Family PSYLLIDÆ.

- Aphalara polygona* Foerst. September.
Pachypsylla celtidis-asteriscus Riley. April.
 celtidis-mama Riley. March, April, October.
 celtidis-minuta Riley. Sedgwick county; April.

Family APHIDIDÆ.

- Schizoneura americana* Riley. August.
Lachnus longistigma Monell. May, November.

ADDITIONS TO THE KANSAS LIST OF ORTHOPTERA.

If the paper by Mr. F. B. Isely entitled "Notes on Kansas Orthoptera," which was published in Transactions of the Kansas Academy of Science, volume XIX, pages 238-249, be generally regarded as the first state list of the orthopterous insects, the additions which I offer herewith will relate to 26 additional species.

The locality for each species taken, unless especially denoted, was Lawrence, Douglas county.

Family BLATTIDÆ.

- Ischnoptera bolliana* Saus. June, at night and at electric light; July.
 uhleriana Saus. June, and June at electric light.
Themnopteryx deropeltiformis Brun. January, in house; March; April;
 June, at night.

Family ACRIDIIDÆ.

- Paratettix toltecus* Saus. May.
Tettigidea lateralis Say. April.
Orphulella pelidna Burm. September.
Arphia carinata Scud. August, at electric light. Also in Sedgwick county;
 August.
 conspersa Scud. Data lost, but Douglas county.
 infernalis Saus. April.
Dissosteira longipennis Thom. Sedgwick county; August, and August, at
 electric light.
Trimerotropis citrina Scud., var. *isabelline* McNeill. June, at electric light.
Campylacantha acutipennis Scud. October.

Family LOCUSTIDÆ.

- Amblycorypha scudderi* Brun. July.
Cyrtophyllus perspicillatus Linne. August, at night, captured by aid of
 light of lantern high up in elm tree.
Conocephalus triops Linne. September, at electric light.
Orchelimum volantum McNeill. July, at electric light.
Xiphidium brevipenne Scud. September.
Ceuthophilus bruneri Scud. June (nymph). Sedgwick county; data lost.
 inquinatus Scud. September.
 tuckeri Rehn. New species. October, at night.
Udeopsylla robusta Hald. Sedgwick county, on farm; data lost.

Family GRYLLIDÆ.

- Tridactylus apicalis Say. May, along sandy banks of Kansas river.
 Ellipes minuta Scud. May, along sandy banks of Kansas river.
 Gryllus luctuosus A.-Serv. June and July, all at electric light.
 Xabea bipunctata De G. August, at electric light.
 Hapithes agitator Uhl. August, colony on ailantus bush.

A PRELIMINARY LIST OF THE NEUROPTEROUS INSECTS OF KANSAS.

No attempt has been made hitherto towards publishing a list of the neuropterous insects found in Kansas. Consequently, if the present list be duly considered as forming a preliminary state list, a beginning is made, with fifty-eight species and one variety.

ORDER EPHEMERIDA.

Family EPHEMERIDÆ.

All of the specimens were collected at electric light on or near bridge across the Kansas river at Lawrence, except in one instance, which is denoted.

- Polymitarchys albus Say. July and August.
 Hexagenia bilineata Say. July and September.
 venusta Eaton. July and August.
 Pentagenia quadripunctata Walsh. June, July, and August.
 Siphurus, species probably new. June and July. The only male imago was taken in July, in daytime, at a distance of more than a mile from the river.
 Heptagenia pulchella Walsh. June and July.
 Rithogenia elegantula Eaton. July.
 Cænis diminuta Wlk. July to September.

ORDER PLECOPTERA.

Family PERLIDÆ.

With few exceptions, which are denoted in each case, the specimens were collected at electric light on bridge across the Kansas river at Lawrence.

- Acroneuria ruralis Hagen. July.
 Perla ephyre Newm. July, at electric light in town, away from river; August, found resting in daytime.
 flavescens Walsh. Last week of June, at electric light one mile from river; July, found resting in daytime; and July, at electric light on bridge.
 lurida Hagen. July.
 Perla xanthenes Newm. July, at electric light in town; August, at electric light on bridge.
 Perlinella placida Hagen. July.
 species probably new. August, found resting in daytime more than a mile from the river.
 Pseudoperla occipitalis Pictet. July.
 Chloroperla bilineata Say. May.
 Capnia pygmæa Burm. April, on bank of Kansas river.

ORDER *ODONATA*.

All Douglas county specimens.

Family *CALOPTERYGIDÆ*.

Calopteryx maculata Palisot de Beauvois. June.
Heterina basalis Hagen. August.

Family *AGRIONIDÆ*.

Lestes forcipatus Rambur. May, at night.
rectangularis Say. August.
unguiculatus Hagen. June, August.

Enallagma civile Hagen. June.
Ischnura verticalis Say. May, June.

Family *GOMPHIDÆ*.

Herpetogomphus designatus Selys. July.
Gomphus amnisola Walsh. June.

Family *ÆSCHNIDÆ*.

Anax junius Drury. May, August.

Family *LIBELLULIDÆ*.

Perithemis domitia Drury. July.
Celithemis eponina Drury. July.
Sympetrum corruptum Hagen. October.
rubicundulum Say. September.
rubicundulum Say, var. *assimilatum* Uhl. September.
vicinum Hagen. July.
Pachydiplax longipennis Burm. September.

ORDER *ISOPTERA*.

Family *TERMITIDÆ*.

Termes flavipes Koll. Douglas county, July, from rotten oak stringers in sidewalk.

ORDER *CORRODENTIA*.

Specimens taken in Douglas county.

Family *PSOCIDÆ*.

Pterodela pedicularia Linne. September.

Family *ATROPIDÆ*.

Atrops divinatoria Fab. September, October, November.

ORDER *NEUROPTERA*.

Unless especially mentioned, specimens were taken in Douglas county.

Family *SIALIDÆ*.

Chauliodes rasticornis Rambur. May, at electric light near river.
Corydalis cornuta Linne. July and August, all at electric light, usually near river. Larvæ collected in July.

Family CHRYSOPIDÆ.

- Chrysopa nigricornis* Burm. April, at electric light; June; October.
oculata Say. May; June, twilight; July; July, twilight. Also in
 Sedgwick county; August.
plorabunda Fitch. April; June; July, at night; August; August,
 at night; November. Also in Sedgwick county; August.
rufilabris Burm. July, twilight; August, at night.

Family HEMEROBIDÆ.

- Hemerobius stigmaterus* Fitch. April; May; May, at night; August, at
 night; September, at night; October.
Symphorobius amicus Fitch. June.
perparvus McLach. April, at lamp light.

Family MYRMELEONIDÆ.

- Brachynemurus abdominalis* Say. August; August, at night. Also in
 Sedgwick county; August.

Family CONIOPTERYGIDÆ.

- Coniopteryx vicina* Hagen. May.

ORDER MECOPTERA.

Douglas county specimens.

Family PANORPIDÆ.

- Bittacus stigmaterus* Say. July, at night; August.
strigosus Hagen. June, July.

ORDER TRICHOPTERA.

All except the first species and some examples of the last were collected
 at electric light on the bridge crossing the Kansas river, at Lawrence.

Family LIMNEPHILIDÆ.

- Apatania pallida?* Hagen. October, attracted by lamp light.

Family LEPTOCERIDÆ.

- Leptocerus dilutus* Hagen. July to October.
Setodes albida Wlk. July to September.
uwarowii Koll. July to September.
Mystacides punctata Banks. July to September (type, August).

Family HYDROPSYCHIDÆ.

- Hydropsyche kansensis* Banks. June to September.
phalerata Hagen. May to September.
scalaris Hagen. June to October; also May, at night; April;
 August in house, attracted by light.

ADDITIONS TO THE KANSAS LIST OF DIPTERA.

So far as determined, nearly half of the species of Diptera taken by me in Kansas are new to the state lists, the preliminary one being published by Dr. F. H. Snow, in the Kansas University Science Bulletin, volume II, No. 5, to which additions were made by Mr. F. F. Crevecoeur, in Transactions of the Kansas Academy of Science, volume XX, pages 90-96. By actual count, the names of 142 different kinds of flies are herewith added to the Kansas list. In this number, two species and one variety are based on my own descriptions.

Unless especially denoted, all specimens were collected in Douglas county.

Family TIPULIDÆ.

Dicranomyia longipennis Schum. May, at night; August.

Pachyrhina ferruginea Fab. May, June, August.

Family CHIRONOMIDÆ.

Ceratopogon bipunctatus Linne. May, in window; June, twilight; August.

Also in Sedgwick county; April.

pilosulus Coq. September, at electric light.

specularis Coq. May.

squamipes Coq. April, at night; May, in windows of house in early morning; May, at night; June; June, at night; July, August, September.

Ablabesmyia (*Tanypus*) *carnea* Fab., variety *b*, Joh. April.

monilis Linne. April.

nigropunctata Stgr. June; June, at night; July.

Tanypus stellatus Coq. September, at electric light.

Chironomus albipennis Meig. July, at electric light.

attenuatus? Wlk. June; July, at electric light; August.

decorus Joh. May; June; July, at electric light; September, at electric light.

flavus Joh. July, at electric light; August; September, at electric light.

frequens Joh. July and August, all at electric light.

fulviventris Joh. July, at electric light.

fulvus Joh. June, at electric light.

fumidus Joh. July, at electric light.

halteralis Coq. July, at electric light.

lineatus Say. July, at electric light.

modestus Say. June.

nigricans Joh. July, at electric light.

pallidus Joh. June, twilight; July, at electric light.

riparius Meig. March, April.

scalænus Schrk, var. June, twilight.

similis Joh. May; May, twilight; June, at night; September, in window.

stigmaterus Say. July and September, all at electric light.

Family CHIRONOMIDÆ.

- Cricotopus sylvestris* Fab. April.
 trifasciatus Panz. September, at electric light.
Comptocladius byssinus Schrk. April, May. Also in Sedgwick county;
 April.
Orthocladus nivoriundus Fitch. May.
 politus Coq. July, at electric light.
Tanytarsus nigripulus Joh. March; April, at night.

Family CULICIDÆ.

- Culex impiger* Wlk. May, at night; July; July, twilight.
 pipiens Linne. May; June; June, twilight; July, twilight; August;
 November.
 restuans Thbld. May, May, twilight; June; June, twilight; July;
 July, twilight; August; August, twilight; September, in house;
 October.
 sylvestris Thbld. April; May, at night and in house; June; June, twi-
 light; July; July, twilight; August; October.
Tæniorhynchus perturbans Wlk. August, twilight.
Sayomia punctipennis Say. July, at electric light; August, at night.

Family MYCETOPHILIDÆ.

- Ceroplatus terminalis* Coq. July, September.
Mycetophila contigua Wlk. March.
 discoides Say. March.

Family BIBIONIDÆ.

- Biblio articulatus* Say. April, May.
Dilophus serotinus Loew. October.
Scatopse atrata Say. April.
 notata Linne. April, in window; May.
 pygmæa Loew. April.

Family RHYPHIDÆ.

- Rhyphus alternatus* Say. April.
 punctatus Fab. April; June; June, twilight; July, twilight.

Family STRATIOMYIDÆ.

- Allognosta fuscitarsis* Say. May, June, July, August.
Sargus elegans Loew. June. Also in Sedgwick county; April.

Family TABANIDÆ.

- Tabanus quinquevittatus* Wied. June.

Family THEREVIDÆ.

- Thereva melanoneura* Loew. May.

Family ASILIDÆ.

- Scleropogon picticornis* Loew. Sedgwick county; August.
Heteropogon phœnicurus Loew. August.
Deromyia ternata Loew. July, twilight.
Cerotainia macrocera Say. July.
Erax bastardii Macq. July.
Tolmerus annulipes Macq. New variety, *delusus* Tkr. June.
 prairiensis Tkr. New species. Sedgwick county; August.

Family DOLICHOPODIDÆ.

- Psilopodinus scobinator Loew. June, twilight.
 Diaphorus spectabilis Loew. June, twilight; July, twilight; August.
 Asyndetus syntermoides Wheeler. July.
 Chrysotus auratus Loew. June.
 longimanus Loew. July.
 obliquus Loew. June, twilight; July; August.
 pallipes Loew. July, twilight.
 picticarnis Loew. August.
 vividus Loew. May.
 Sympycnus lineatus Loew. May; May, at night; June; June, twilight; July,
 twilight.
 Dolichopus vittatus Loew. June, twilight.
 Gymnopternus crassicauda Loew. June.
 humilis Loew. June.

Family EMPIDIDÆ.

- Drapetis latipennis Melander. June.
 Syneches pusillus Loew. July, twilight.
 Rhamphomyia irregularis Loew. April.

Family LONCHOPTERIDÆ.

- Lonchoptera lutea Panz. May.

Family PHORIDÆ.

- Phora incisuralis Loew. June, twilight.
 multiseriata Ald. May.
 Aphiochæta agarici Lint. May.
 epeiræ Brues. May.
 longifrons Brues. June, twilight.

Family PLATYPEZIDÆ.

- Platypeza obscura Loew. July, twilight.
 pallipes Loew. June.

Family PIPUNCULIDÆ.

- Chalarus spurious Fal. June, twilight.
 Pipunculus atlanticus Hough. June, twilight.
 fuscus Loew. July, twilight.

Family SYRPHIDÆ.

- Chrysotoxum laterale Loew., var. September.
 Pipiza pisticoides Will. Sedgwick county; April.
 Myiolepta nigra Loew. May, in window.
 varipes Loew. May.
 Ocyptamus fuscipennis Say. July.
 Rhingia nasica Say. June, twilight.
 Ceria willistonii Kahl. June.

Family TACHINIDÆ.

- Eulasiona comstockii Twms. April.
 Electops melissopodis Coq. October.
 Hypostena barbata Coq. Sedgwick county; April.

Family TACHINIDÆ.

- Exorista blanda O. S. June, twilight; July.
 griseomicans Van der Wulp. May.
 Phorocera leucaniæ Coq. July.
 Acemyia dentata Coq. October.
 Tachina robusta Twms. April, May.
 Hilarella aristalis Coq. July.

Family DEXIIDÆ.

- Melanophora roralis Linne. May, June, July, September.

Family SARCOPHAGIDÆ.

- Sarcophaga (Helicobia) helicis Twms. July. Also in Sedgwick county; April.

Family ANTHOMYIDÆ.

- Hyetodesia (Phaonia) mulcata? Giglio-Tos. April.
 Linnophora narona Wlk. June; July; July, twilight. Also in Sedgwick county; April.
 Hylemyia lipsia Wlk. April; June; July; July, twilight; August.
 Forbia fusciceps Zett. April; April, at night; June; June, twilight. Also in Sedgwick county; April.
 Cœnosia lata Wlk. April, July, August.
 Schœnomyza dorsalis Loew. May, June.

Family HELOMYZIDÆ.

- Leria pectinata Loew. April, at night.

Family BORBORIDÆ.

- Limosina evanescens Tkr. New species. June; June, twilight; July, at electric light.

Family SCIOMYZIDÆ.

- Sciomyza obtusa Fal. June.

Family SAPROMYZIDÆ.

- Lonchæ vaginalis Fal. June.
 Lauxania gracilipes Loew. July, twilight.
 Sapromyza innuba? Giglio-Tos. April.
 quadrilineata Loew. April.

Family ORTALIDÆ.

- Tetanops integra Loew. May.
 Pseudotephritis vau Say. June.
 Seoptera vibrans Linne. June.

Family SEPSIDÆ.

- Nemopoda minuta Wied. June, twilight; July; July, twilight.

Family PSILIDÆ.

- Chyliza apicalis Loew. June, twilight.

Family EPHYDRIDÆ.

- Hyadina albovenosa Coq. April, at night.

Family OSCINIDÆ.

- Chlorops palpalis* Adams. May, twilight.
Hippelates flavipes Loew. June. Also in Sedgwick county; April.
 pusio Loew. June, twilight; August. Also in Sedgwick county;
 April.
Oscinis carbonaria Loew. April, at night; May, at night.
 coxendix Fitch. April; June, twilight. Also in Sedgwick county;
 April.
 decipiens Loew. July.
 soror Matq. May, June.

Famils DROSOPHILIDÆ.

- Drosophila* (*Scaptomyza*) *adusta* Loew. May, at night; August.
 amœna Loew. April.
 funeris Fab. May; June; July; July, twilight; October; and
 November, in kitchen.
 (*Scaptomyza*) *graminum* Fal. April; April, at night.

Family AGROMYZIDÆ.

- Phytomyza diminuta* Loew. May; June, twilight and at night.
Ceratomyza dorsalis Loew. May, at electric light; June.
Agromyza æneiventris Fal. July.
 parvicornis Loew. Sedgwick county; April.
Desmometopa latipes Meig. June.
 m-nigrum Zett. June.
Ophthalmomyia lacteipennis Loew. Sedgwick county; August, in windows
 of farmhouse.